



# CAT<sup>®</sup> 735

## ARTICULATED TRUCK BARE CHASSIS

Cat<sup>®</sup> chassis are the right choice for specialty truck bodies (coal, trash), water trucks, fuel and lube, service vehicles, container carriers, hook lifts and other machine derivatives. These partial machine configurations allow industrial, waste, material handling, quarry, and mining customers to purchase complete solutions from our global Cat dealer network — with support every step of the way.

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### PROVEN CAT<sup>®</sup> TRUCK PLATFORM

Cat trucks are built for durability, reliability, and efficiency to deliver the performance you need in some of the toughest applications around the world.

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### PROVEN RELIABILITY

The Cat C13 engine delivers proven reliability across a variety of platforms. Terrain-based throttle control smooths throttle input over rough terrain to improve ride quality. Enhanced reliability through commonality and design simplicity with long life to overhaul. Hydraulic retarder improves response and increases retarding power for controlled descent of grades.

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### COMFORTABLE OPERATOR ENVIRONMENT

New cab has 20% more interior space and is designed to make all aspects of machine operation as simple as possible for every operator. Increased glass area optimizes operator and trainer visibility. Newly styled and updated dash puts controls within reach and features LED-illuminated rocker switches.

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### BOOST FUEL EFFICIENCY

Next generation machine design improves fuel economy with minimized maintenance costs and the same great power and response. Economy mode reduces fuel use without affecting productivity and can be engaged with a single button.

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### BUILT-IN SAFETY FEATURES

Enter the machine safely with machine wakeup and new stairway lighting. Operator-presence detection system applies parking brake if gear is engaged and operator is not seated. Cat Detect with Stability Assist provides audible and visual alerts to the operator if the tractor and/or trailer unit is approaching an unstable angle during operation.

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### REDUCED MAINTENANCE COSTS

Durable design and easier servicing mean maximized uptime and reduced service costs. Universal joints are lubricated for life, eliminating any maintenance. Coolant formula improves component life by reducing corrosion. Entire machine is designed for greater ease of maintenance with side-tilting cab, electrically raised hood, access panels, and Cat Data Link connector.

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### SUPPORTED BY THE CAT DEALER NETWORK

- + Full support of Cat dealer and parts network
- + Cat dealer installation & retrofit kits available
- + Eligible for Equipment Protection Plans (EPP) & Customer Value Agreements (CVAs)



# 735 Articulated Truck Bare Chassis Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

## Engine

Engine Model	Cat® C13	
Rated Engine Speed	1,800 rpm	
Gross Power (SAE J1995:2014)	324 kW	434 hp
Net Power (SAE J1349:2011)	316 kW	424 hp
Engine Power (ISO 14396:2002)	320 kW	429 hp
Bore	130 mm	5.1 in
Stroke	157 mm	6.2 in
Displacement	12.5 L	762.8 in <sup>3</sup>

- Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator.
- Net power when the fan is at maximum speed is 254 kW (341 hp) per the SAE reference conditions.
- Meets U.S. EPA Tier 4 Final, EU Stage V, Korea Tier 4 Final, and Japan 2014 emission standards.
- DEF used in Cat SCR systems must meet the requirements outlined in ISO 22241-1. ISO 22241-1 requirements are met by many brands of DEF, including those that carry the AdBlue or API certifications.

## Wheel Base

Standard Wheel Base	3979 mm	156.7 in
Long Wheel Base	5465 mm	215.2 in

## Operating Weights — with Hoist Cylinders (LRC)

Bare Chassis Weight	20 880 kg	46,032 lb
Payload	38 713 kg	85,347 lb
Front Axle Bare Chassis Weight	14 600 kg	32,187 lb
Front Axle Payload	4136 kg	9,118 lb
Center Bare Chassis Weight	3250 kg	7,165 lb
Center Axle Payload	17 289 kg	38,116 lb
Rear Axle Bare Chassis Weight	3030 kg	6,680 lb
Rear Axle Payload	17 288 kg	38,113 lb

## Operating Weights — without Hoist Cylinders (LRC)

Bare Chassis Weight	20 460 kg	45,107 lb
Payload	39 133 kg	86,273 lb
Front Axle Bare Chassis Weight	14 430 kg	31,813 lb
Front Axle Payload	4306 kg	9,493 lb
Center Bare Chassis Weight	3125 kg	6,889 lb
Center Axle Payload	17 414 kg	38,391 lb
Rear Axle Bare Chassis Weight	2905 kg	6,404 lb
Rear Axle Payload	17 413 kg	38,389 lb

## Operating Weights — without Hoist Cylinders (LRC) LWB

Bare Chassis Weight	21 190 kg	46,716 lb
Payload	38 403 kg	84,664 lb
Front Axle Bare Chassis Weight	14 500 kg	31,967 lb
Front Axle Payload	4236 kg	9,339 lb
Center Bare Chassis Weight	3455 kg	7,617 lb
Center Axle Payload	17 084 kg	37,664 lb
Rear Axle Bare Chassis Weight	3235 kg	7,132 lb
Rear Axle Payload	17 083 kg	37,662 lb

## Operating Weights — with Hoist Cylinders (HRC)

Bare Chassis Weight	21 240 kg	46,826 lb
Payload	38 353 kg	84,554 lb
Front Axle Bare Chassis Weight	15 120 kg	33,334 lb
Front Axle Payload	3616 kg	7,972 lb
Center Bare Chassis Weight	3170 kg	6,989 lb
Center Axle Payload	17 369 kg	38,292 lb
Rear Axle Bare Chassis Weight	2950 kg	6,504 lb
Rear Axle Payload	17 368 kg	38,290 lb

## Operating Weights — without Hoist Cylinders (HRC)

Bare Chassis Weight	20 820 kg	45,900 lb
Payload	38 773 kg	85,480 lb
Front Axle Bare Chassis Weight	14 950 kg	32,959 lb
Front Axle Payload	3786 kg	8,347 lb
Center Bare Chassis Weight	3045 kg	6,713 lb
Center Axle Payload	17 494 kg	38,568 lb
Rear Axle Bare Chassis Weight	2825 kg	6,228 lb
Rear Axle Payload	17 493 kg	38,565 lb

## Operating Weights — without Hoist Cylinders (HRC) LWB

Bare Chassis Weight	21 550 kg	47,510 lb
Payload	38 043 kg	83,870 lb
Front Axle Bare Chassis Weight	14 950 kg	32,959 lb
Front Axle Payload	3786 kg	8,347 lb
Center Bare Chassis Weight	3410 kg	7,518 lb
Center Axle Payload	17 129 kg	37,763 lb
Rear Axle Bare Chassis Weight	3190 kg	7,033 lb
Rear Axle Payload	17 128 kg	37,761 lb

- LRC = Lesser Regulated Countries. HRC = Highly Regulated Countries.
- Care must be taken when designing any attachments so that the axle weights are not exceeded.

# 735 Articulated Truck Bare Chassis Specifications

## Brakes

Brake Standards	ISO 3450:2011
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## Transmission

Forward 1	8 km/h	5 mph
Forward 2	15 km/h	9 mph
Forward 3	22 km/h	14 mph
Forward 4	34 km/h	21 mph
Forward 5	47 km/h	29 mph
Forward 6	55 km/h	34 mph
Reverse	9 km/h	6 mph

## Body Hoists

Raise Time	12 seconds
Lower Time	11 seconds

## Service Refill Capacities

Fuel Tank	412 L	108.8 gal
Cooling System	83 L	21.9 gal
Steering/Hoist Hydraulic System	110 L	29.1 gal
Engine Crankcase	38 L	10 gal
Transmission	56 L	12.4 gal
Final Drives/Differential	125 L	33 gal
Output Transfer Gear Box	25 L	6.6 gal
Diesel Exhaust Fluid (DEF) Tank	20 L	5.3 gal

## Steering

Steering Standards	ISO 5010:2019	
Steer Angle	45°	
SAE Turning Radius	7470 mm	294 in
Clearance Radius	8075 mm	318 in
Inside Radius	3793 mm	149 in
Aisle Width	5393 mm	212 in

## Cab

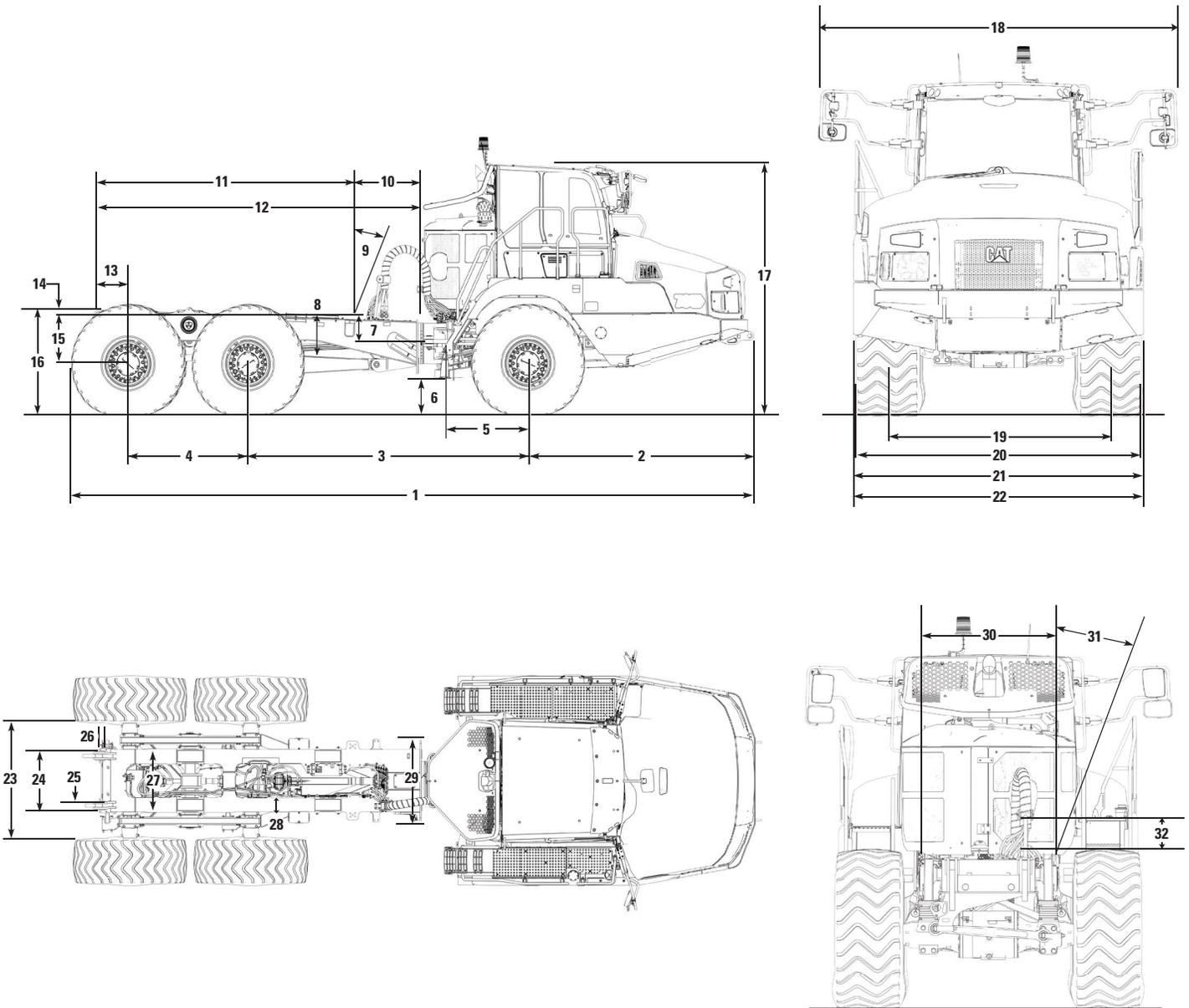
ROPS Certification Rating	ISO 3471:2008
FOPS Certification Rating	ISO 3449:2005 Level II

- The declared dynamic operator sound pressure level is 72 dB(A) when ISO 6396:2008 is used to measure the value for an enclosed cab. The measurement was conducted at 70% of the maximum cooling fan's speed. The sound level may vary at different cooling fan speeds. The measurement was conducted with the cab doors and the cab windows closed. The cab was properly installed and maintained.
- Hearing protection may be needed when operating with an open operator station and cab or when not properly maintained or doors/windows open for extended periods or in noisy environments.
- Note: Welding on ROPS or making modifications to the ROPS may void the ROPS certification. Please contact Caterpillar OEM Solutions if the application requires welding on the machine frame.

# 735 Articulated Truck Bare Chassis Specifications

## Dimensions

All dimensions are approximate.



# 735 Articulated Truck Bare Chassis Specifications

Dimensions	SWB		LWB	
1 Overall Length	9694 mm	381.65 in	11 180 mm	440.16 in
2 Front Axle to Bumper	3210 mm	126.38 in	3210 mm	126.38 in
3 Front Axle to Center Axle	3979 mm	156.65 in	5475 mm	215.16 in
4 Center Axle to Rear Axle	1700 mm	66.93 in	1700 mm	66.93 in
5 Articulation Joint to Front Axle	1210 mm	47.64 in	1210 mm	47.64 in
6 Clearance	545 mm	21.48 in	548 mm	21.6 in
7 Pivot Pin to Frame Bottom	363 mm	14.29 in	-	-
8 Frame Height Rear	311 mm	12.24 in	-	-
9 Front Body Angle	22 degrees		22 degrees	
10 Body Pivot Clearance	858 mm	33.72 in	858 mm	33.72 in
11 Body Clearance	3678 mm	144.80 in	5144 mm	202.56 in
12 Body Guides	3566 mm	140.4 in	4287 mm	168.72 in
13 Rear Axle to Pivot Pin (horizontal)	421 mm	16.2 in	422 mm	16.56 in
14 Pivot Pin to Top of Frame Rail	90 mm	3.54 in	90 mm	3.54 in
15 Rear Axle to Pivot Pin (vertical)	620 mm	24.36 in	638 mm	25.08 in
16 Top of Frame Rail	1491 mm	58.68 in	1516 mm	59.64 in
17 Top of Cab	3508 mm	138.11 in	3508 mm	138.11 in
18 Mirror Width	3676 mm	144.72 in	3676 mm	144.72 in
19 Track Width	2275 mm	89.57 in	2275 mm	89.57 in
20 Over Free Width of Tire	2877 mm	113.27 in	2877 mm	113.27 in
21 Fender Width	2950 mm	116.14 in	2950 mm	116.14 in
22 Max Unladen Over Tire Bulge	2950 mm	116.14 in	2950 mm	116.14 in
23 Tire Clearance	1629 mm	64.13 in	1629 mm	64.13 in
24 Pivot Casting Width	833 mm	32.80 in	833 mm	32.80 in
25 Pivot Bearing to Rear Frame	93 mm	3.66 in	93 mm	3.66 in
26 Pivot Bearing Width	134 mm	5.28 in	134 mm	5.28 in
27 Frame Width (rear)	910 mm	35.88 in	910 mm	35.88 in
28 Beam Width	196 mm	7.72 in	196 mm	7.72 in
29 Frame Width	896 mm	35.28 in	896 mm	35.28 in
30 Body Width	2914 mm	114.72 in	-	-
31 Truck Body Angle	45 degrees		45 degrees	
32 Tire Height to Chassis	98 mm	3.84 in	98 mm	3.84 in

\*\* These dimensions may vary based on tire size, pressure and load. All dimensions are for reference only and may change for different machine configurations.

# 735 Articulated Truck Bare Chassis Specifications

## Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional		
<b>POWERTRAIN</b>							
Auto shift six-speed forward and single speed reverse transmission	•		Liquid Crystal Display (LCD): alert indicator, selected gear and direction, speed or auto shift, Operation and Maintenance Manual (OMM), primary steering failure (warning), seat belt warning, secondary steering failure, Diesel Particulate Filter (DPF) regeneration filter, Machine Security System (MSS), secondary steering energy source engaged, hour meter, retarder active	•			
CX31 transmission	•			Horn, electric	•		
Cat Clean Emission Module (CEM) and exhaust aftertreatment package	•			Operator and passenger grab handles	•		
Differentials: standard with automatic clutched inter and cross-axle differential locks	•			Mirrors, extensive arrangement for improved visibility	•		
Dual circuit enclosed multiple disc brakes	•			Mirrors, heated motorized		•	
Engine compression brake	•			Machine operation monitoring system: action lamp, engine oil pressure, primary steering system, left and right turn signal, high beam, coolant temperature, tachometer, parking brake, fuel level, transmission oil temperature, brake system, transmission hold, hoist control, hydraulic system, charging system, transmission fault, traction control system, check engine lamp	•		
S-O-S <sup>SM</sup> sampling valves	•				Radio ready	•	
Three axle, six-wheel drive	•				Radio, Bluetooth® stereo system		•
Machine speed limiter	•				ROPS/FOPS cab with full instrumentation	•	
Automatic Retarder Control	•				Seat: fully adjustable, air suspension	•	
Hill Assist	•		Seat, padded companion/trainer		•		
Waiting Brake	•		Seat belts: two retractable		•		
			Seat, heated/cooled			•	
			Operator seat belt, four-point			•	
			Secondary steering – electro hydraulic		•		
<b>ELECTRICAL AND LIGHTING</b>							
Batteries (two) maintenance free	•		Storage: cup holder, flask receptacle (under the secondary seat), under seat storage, door pocket, behind seat storage, coat hook	•			
Electrical system: 24 volt, 5A 24 to 12 volt converter	•		Sun visor	•			
<b>Lighting System:</b>							
• Cab interior	•		Tilt and telescopic steering wheel	•			
• Front, side, rear	•		Windshield wiper and washer, two speed, intermittent (front)	•			
• Two reversing	•		Window wiper and washer, two speed (rear)	•			
• Work lights	•		Window blinds		•		
• Two stop/tail lights and width marker	•		Windows (tinted) opening both sides	•			
Hood Raise Lower Switch	•		<b>SAFETY</b>				
Cold weather start attachment		•	Reverse alarm	•			
Engine block heater		•	Rearview camera	•			
Ether start		•	ROPS/FOPS cab	•			
Flashing LED beacon		•					
Roof-mounted High Intensity Discharge (HID) work lights		•					
<b>OPERATOR ENVIRONMENT</b>							
Air conditioning with R134A refrigerant	•						
Adjustable air vents	•						
Touch Screen including cycle counter, rear view camera and screen	•						
Electro hydraulic hoist control	•						
Glass windows: laminated front, toughened rear and toughened opening	•						
Heater and defroster with four-speed fan	•						
Infrared glass – high ambient cab		•					

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## Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
<b>OTHER EQUIPMENT</b>		
<b>Guards:</b>		
• Axle	•	
• Crankcase	•	
• Radiator	•	
• Rear window	•	
Cold weather coolant -51°C (-60°F)		•
Fast fuel fill		•
Fuel additive, anti-waxing		•
Auto lube installation for automatic greasing of bearings		•
Tires, six 750/65 R25	•	
Wheel chocks		•
Starting receptacle, electric, remote	•	
Vandalism protection: lockable caps for fuel tank, DEF tank and hydraulic oil tank	•	
Assisted Hoist System	•	

## CAT TECHNOLOGY

Machine Security System (MSS)		•
Cat Production Measurement payload monitoring system		•
Cat Detect with Stability Assist	•	
PLE641 (cellular) dependent on location and licensing agreement	•	
PLE631 (satellite)		•

**For more information on Cat Truck Bare Chassis, contact OEM Solutions:**

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